Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-17. (Cancelled)

18. (Original) A method for manufacturing a valve integrally associated with a microfluidic transport assembly, the method comprising the steps of:

integrally bonding a first rigid layer having substantially planar and opposing first and second surfaces to a second rigid layer having substantially planar and opposing third and fourth surfaces, such that the third surface of the second rigid layer contacts the second surface of the first rigid layer, and such that a first passageway is formed wherein the first passageway is defined by a groove that runs along the second surface of the first rigid layer and is bounded by the third surface of the second rigid layer, and wherein the first passageway is adapted to flow a liquid sample therethrough, and wherein the first passageway includes a valve seat that has a substantially planar plateau surface wherein the valve seat is integrally connected to the first rigid layer such that the plateau surface is substantially planar to and interposed between the first and second surfaces of the first rigid layer; and

casting a flexible membrane into a first membrane through hole of the second rigid layer such that the flexible membrane has a passageway surface that is adapted to be either (i) substantially coplanar to the second surface of the first rigid layer when the valve is in an open position, or (ii) bulged with a central portion thereof being substantially coplanar to the plateau surface of the valve seat when the valve is in a closed position.

19. (Original) The method of claim 18 wherein the step of integrally bonding involves laser welding the third surface of the second rigid layer to the second surface of the first rigid layer.

20.-21. (Cancelled)